End-of-Waste Criteria for Plastic Waste

Response from the Rethink Plastic Alliance to the public consultation on the Commission's proposal for an Implementing Regulation to establish EU-wide End-of-Waste (EoW) criteria for plastic waste

About Rethink Plastic

The Rethink Plastic Alliance is a coalition of leading European NGOs advocating for ambitious EU policies to tackle the growing crisis of plastic pollution. It brings together the Center for International Environmental Law (CIEL), ClientEarth, the Environmental Investigation Agency (EIA), the European Environment Bureau (EEB), the European Environmental Citizen's Organisation for Standardisation (ECOS), Greenpeace, Seas At Risk, Surfrider Foundation Europe, and Zero Waste Europe. Together, these organisations represent thousands of active groups, supporters and citizens in every EU member State working towards a future free from plastic pollution.

Introduction

The Rethink Plastic Alliance welcomes the work of the European Commission to set EU-wide End-of-Waste (Eow) criteria for plastics. The current lack of harmonised EoW and traceability mechanisms, amongst other factors such as the low-cost of primary fossil-based feedstocks and the overall quality of recyclates, hinders the internal market for plastic recyclates in the EU. Setting EU-wide criteria can remove this one barrier to the development of waste-derived materials markets and support reductions in virgin plastic use in the EU. Yet, such EoW criteria must be clearly defined, enforceable, consistent with existing EU legislation, and even close the gap between different spheres of legislation if they are to support genuine circularity in the EU.

Plastics illustrate both the opportunity presented by EU-EoW policy and the danger posed by a poorly designed framework. The high presence of chemicals in plastics often contaminates the recycling process, making many plastics hard to recycle, leading to downcycling or being shipped abroad for "recycling". This situation creates particular challenges for toxic-free circularity. Without clear, enforceable and transparent EoW rules, the EU risks turning waste management practices into a black box, undermining high-quality recycling, while supporting (illegal) exports of waste abroad, allowing materials to unjustifiably escape the more restrictive waste regime. This would undermine EU legislation on chemicals, products and waste, and thereby reduce the overall level of workers' and consumers' protection and further erode trust in recycled materials. To prevent these risks, **EoW criteria for plastics should be harmonised, ensuring non-hazardous and uncontaminated inputs, safe outputs, and a traceable value chain and trade, while working hand-in-hand with existing legislation to achieve a toxic-free circular economy**.

The Rethink Plastic Alliance overall welcomes the proposed EoW criteria for plastics but urges the EU to strengthen the criteria for eligible inputs and control mechanisms to ensure genuine circularity.

Requirements for plastic waste used as input material

In the proposed Regulation, the European Commission highlights the need to pay particular attention to the treatment of hazardous waste. Yet, the proposed criteria for waste input eligibility are limited and therefore insufficient to prevent toxic loops and contaminated outputs. The Alliance **recommends setting more stringent criteria for eligible waste input.**

According to the proposed EoW criteria for plastics, almost all inputs are eligible for EoW status, including waste containing hazardous substances or persistent organic pollutants (POPs) at concentrations above the regulatory limit values, provided that the output materials comply with EU chemical and product legislation. Considering that many plastic waste streams remain heterogeneous and contaminated, that (most) mechanical and solvent-based recycling processes do not allow decontamination, and that output testing and control are costly, accepting all input and focusing only on outputs' compliance would prevent toxic-free recycling, impacting both human health and the environment. Doubts on the quality of the outputs will also impact trust in recycled plastics and, consequently, their uptake. The proposed criteria also risk undermining EU chemical and product legislation, for example, the POP Regulation, by allowing waste inputs above legal thresholds.

The Alliance considers that certain waste inputs should be restricted: A positive list for eligible plastic waste inputs could be an option, in line with the approach chosen by some EU Member States (Estonia, Finland, Portugal and Spain), as could a negative list of eligible inputs. At the very least, plastic waste listed under Annex VIII (hazardous waste) and Annex II (special considerations, hard to recycle) of the Basel Convention should not be accepted as input for EoW status. This includes all plastics listed under Y48 (Annex II), including PVC and PTFE.

Setting stronger criteria on the eligible inputs (through a clearly defined positive or possibly negative list) would not only ensure safer outputs, but it would also support control and enforcement by authorities, including during trade.

Requirements for treatment processes and techniques

The Rethink Plastic Alliance **welcomes the Commission's proposal to limit eligibility to EoW status to outputs from mechanical or solvent-based recycling processes**, as the goal when establishing an EoW for plastics is to enhance the circularity of the plastic sector.

Therefore, the **EoW status should apply only to outputs from plastic-to-plastic recycling** (without chemical modification) used to produce new plastic products. This answers the first requirement of Article 6.1(a) of the Waste Framework Directive (WFD), setting as a condition that "the substance or object is to be used for specific purposes". In line with this, we support that only pellets and flakes from the recycling process, to be used in the production of new plastic products, can be granted EoW status.

We also welcome that the proposed Regulation clearly states that *"If the output plastic is used for other purposes than for the production of new plastic products or articles containing plastic parts, such as for energy recovery, as input material for chemical or fuel production, or for backfilling operations, it should not be granted end-of-waste status"*. Given that the output of chemical recycling technologies is generic and can be used as a feedstock for various processes and applications, such output cannot meet the conditions for EoW status. Likewise, plastic lumps should not be eligible as output material for EoW: They are too unspecific, pose high contamination risks, and require further treatment before being used in the production of new plastic products.

The alliance **also supports that the EoW point should be set after the recycling process**, when the output is ready for re-melting and use in the direct production of plastic products or objects made of plastic. This way:

- The system boundary ensures that recycling has genuinely taken place, rather than merely preparatory or pre-treatment activities. This approach treats different recycling technologies consistently by focusing on the functional equivalence of outputs rather than the different processes used, enabling a more holistic comparison of the quality and quantity of recyclate delivered; critical for regulatory credibility and market confidence.
- The recyclate produced meets customers' requirements for its intended applications. By focusing on performance and usability, rather than narrowly defined end uses, the framing remains flexible enough not to limit the use of recycled plastics to a specific sector or type of plastic product. This will help support market uptake, while maintaining safeguards against the circulation of low-quality or contaminated materials.
- Importantly, it prevents the misuse of EoW for plastics diverted to non-plastic uses (i.e., fuel production or energy recovery), which risks legitimising practices incompatible with the sector's circularity goals.

We welcome that the draft Regulation clearly states that "preliminary sorting operation or visual checking of the input plastic should not be considered sufficient to meet the end-of-waste criteria". This clarification is essential to prevent regulatory loopholes, avoid inconsistent application across Member States, and ensure that EoW status is reserved for materials that have undergone a substantive transformation, thereby further supporting the enforceability and implementation of the EU Waste Shipment Regulation.

Furthermore, to avoid any doubt regarding the allowed subsequent processing activities of plastic recyclates,[1] we recommend amending the wording of Article 3, paragraph (2) of the Regulation by replacing "the plastic output, that has achieved end-of-waste status" with "plastic recyclates." This would ensure consistency within the Regulation between the definitions provided in Article 1, namely, "output plastic" and "plastic recyclates", and between Article 3 and Article 4, which explicitly refers to "plastic recyclates." Referring to "plastic recyclates" as "the plastic output that has achieved end-of-waste status" may cause confusion and misinterpretation, given that a dedicated definition for this notion exists and is consistently used throughout the Regulation, except in Article 3, paragraph (2).

[1] Opposite to the plastic output from mechanical recycling operations or the solvent-based recycling operations, which according to Article 3, para(1) of the Regulation, is not subject to further treatment operations.

The Alliance welcomes the exclusion of chemical "recycling" processes from the eligible processes and techniques. The EU legal framework on recycling is general and does not distinguish among different types of recycling activities. It does, however, clearly exclude certain activities, such as the production of fuel and energy recovery. In this context, it is important to recall that there is no agreement among stakeholders on the definition of so-called chemical "recycling", an umbrella term that encompasses very different processes with different environmental impacts and efficiency rates respectively. The **Rethink Plastic Alliance, together with other representatives of civil society, considers pyrolysis and gasification to be recovery processes, not recycling.**[2] Indeed, these processes convert waste into a mixture (i.e., pyrolysis oil and syngas), a large portion of which is used for fuel production. This goes directly against the definition of recycling from the WFD.[3]

Requirements for product quality

The Alliance wants to highlight that, as described in the proposed Regulation (Annex), it is essential that the output material comply with EU product legislation and that the **same quality standards should apply to virgin and recycled materials,** to protect both human health and the environment and to ensure trust in recycled materials. Focus and priority should be put on **detoxifying materials and products from the design and primary production stages.** This is a prerequisite to ensure a high level of protection, allowing non-toxic circularity, while being much more (cost) effective than decontamination at a later stage (assuming decontamination is technically possible).

The Alliance **supports that each batch should be controlled and traceable from input to output**. Traceability mechanisms that already exist or are being developed, including for certain sectors in the context of the Ecodesign for Sustainable Products Regulation and the Digital Product Passport, could be used and/or complemented to prevent duplication.

The Alliance **welcomes the requirement for certification** of quality management systems, as self-monitoring has serious limitations and cannot be the sole control mechanism. The verification and (renewal of) the certifications should take place on a regular basis (maximum every 3 years) to ensure quality and support continuous compliance. Equally, we welcome the fact that similar quality management systems apply to plastic recyclates imported from third countries, which is needed to ensure a higher level of protection and level the playing field between European and non-European recyclers.

The Alliance welcomes the establishment of a threshold for foreign materials that is below the threshold for plastic waste trade and would recommend a stricter threshold than the proposed 1.9 per cent: The Alliance would recommend 0.5 per cent. Despite some progress in separate

[2] DUH, ECOS, ZWE, *Chemical Recycling and Recovery – Recommendation to Categorise Thermal Decomposition of Plastic Waste to Molecular Level Feedstock as Chemical Recovery*, 2021

[3] According to Article 3 (17) of the WFD, 'recycling' means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations

collection, plastic waste is often contaminated with other waste types, so the establishment and enforcement of a strict threshold is essential.

Start date of applicability of the Regulation

According to Recital (14), "it is necessary to defer the application of the Regulation" in order to ensure that operators have sufficient time to adapt to the criteria determining when plastic waste ceases to be waste. The Regulation does not specify what exactly constitutes the deferral period.

Furthermore, in Article 7 of the Regulation it is stated (i) the Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union, and that (ii) that the Regulation shall be applicable starting from 1 July 2026.

From the above-mentioned provisions, it is not entirely clear that the deferral period referred to in Recital (14) corresponds to the period between the entry into force and the specific applicability date of 1 July 2026. We recommend clarifying which period constitutes the deferral period for the applicability of the Regulation.

EoW, waste trade and other EU legislation

The Alliance welcomes that the draft Implementing Regulation emphasises that *"it should establish end-of-waste criteria for plastic waste that do not undermine those export restrictions"* and introduces a specific criterion in the form of a threshold on foreign materials below the one for plastic waste trade. The Alliance also welcomes the additional criterion that for exports of plastic recyclates outside the EU, the plastic output can include only one thermoplastic polymer, except for mixtures of polyethylene (PE), polypropylene (PP) and/or polyethylene terephthalate (PET). We recommend, however, that this exception be expressly included in the body of the Regulation itself, rather than solely in Recital (10). This would ensure clarity and prevent any misinterpretation of the exemption for the export of plastic recyclates, namely that the plastic output cannot contain mixtures of polyethylene (PE), polypropylene (PP), and/or polyethylene terephthalate (PET).

Plastics and plastic waste are highly traded commodities, so strong mechanisms should be put in place to ensure the quality and traceability of the output granted EoW status, and prevent any circumvention of plastic waste trade rules. It is essential that the EoW criteria for plastics (and the EoW policy framework more generally) and the Waste Shipment Regulation work hand-in-hand. Recognising the significant impacts of the trade in plastic waste, the EU rightly decided to ban all exports of plastic waste from the EU to non-OECD countries and subject potential exports to OECD countries to stringent requirements. This calls for a particularly cautious approach to EoW status for plastics to ensure that EoW policy does not create loopholes in plastic waste trade restrictions under EU and international obligations, which would indirectly facilitate illegal activities and significantly undermine human health and environmental protection globally.

Restricting EoW for plastics' eligibility to non-hazardous uncontaminated waste inputs would support toxic-free circularity in the EU while also limiting the risks of undermining the Waste Shipment Regulation.

In addition, it is essential to integrate EoW policy with trade and enforcement systems, including through the continued participation in EoW IMPEL with customs authorities and environmental inspectors.

Finally, the Alliance wants to emphasise that EoW policy is one tool in the toolbox to support strategic use of resources, greater traceability along the value chain, and toxic-free circular-economy objectives in the EU. **EoW policy should be integrated into a wider sustainability and safety policy framework and work hand-in-hand with the implementation of other legislation**, including (but not limited to) the Ecodesign for Sustainable Products Regulation, the Packaging and Packaging Waste Regulation, the Single-Use Plastics Directive and the Waste Shipment Regulation while also supporting the objectives of the Chemical Strategy for Sustainability.

Main recommendations:

- Maintain the proposed scope of eligible processes and techniques, covering mechanical and solvent-based recycling and excluding chemical recycling processes.
- Strengthen the criteria on eligible input waste, to ensure high-quality, safe outputs, protect human and the environment, and not undermine the EU waste trade regulations.
- Clarify what is the deferral period of applicability of the Regulation.
- Expressly state in the body of the Regulation that export of plastic recyclates cannot contain the plastic output of mixtures of polyethylene (PE), polypropylene (PP), and/or polyethylene terephthalate (PET).
- Set a stricter threshold for foreign element contamination.